

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number: 14-211

PROJECT INFORMATION

Project Title: Hells Hole (#9025) Water Catchment Redevelopment

Region and Game Management Unit: Region II, GMU 13A

Local Habitat Partnership Committee (LHPC):

- Arizona Strip Habitat Working Group

Was the project presented to the LHPC?
YES ☐ NO ☒

This project has been reviewed and approved by the Arizona Strip Habitat Working Group and is part of the statewide Water Implementation Schedule, as well as the local regional water prioritization.

Has this project been submitted in previous years? YES ☐ NO ☒

If Yes, was it funded? YES ☐ NO ☐ → **Funded HPC Project #(s):**

Project Type: Wildlife Water Catchment Redevelopment

Brief Project Summary:

This project will be a complete redevelopment of the Hells Hole #9025 (BLM) Wildlife Water Catchment in southern GMU 13A. Redevelopment will include an upgraded apron material, a larger storage tank, a new walk-in wildlife drinker, and replacement of existing barbed wire fence with steel rail fences. R-panel type roofing panels are to be fastened to a new metal frame that will replace the current failing metal apron at the site. 4 polyethylene storage tanks at 2,500 gallons each will replace the existing small concrete vault providing 10,000 gallons of water, and a new 4' polyethylene walk in style trough will replace the existing small metal drinker. Redevelopment of this catchment is necessary to meet AZGFD statewide strategic goals, AZGFD water development implementation plans on the Arizona Strip, and BLM objectives for management of mule deer and wildlife habitat.

Big Game Wildlife Species to Benefit: Mule Deer, Merriam's Turkey, and any other wildlife in the area

Implementation Schedule (Month/Day/Year):

Project Start Date: Spring 2015

Project End Date: Summer 2016

Environmental Compliance:

NEPA Completed: Yes ☒ No ☐ N/A ☐

Projected Completion Date: 6/20/2013

State Historic Preservation Office - Archaeological Clearance:

Yes ☒ No ☐ N/A ☐

Projected Completion Date: 6/22/2011

Arizona Game and Fish Department EA Checklist: N/A ☐

To be Completed by: Joe Currie

Projected Completion Date: Fall 2012

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 55,920.00

Cost Share or Matching Funds: \$ 0

Total Project Costs: \$ 55,920.00

PARTICIPANT INFORMATION		
Applicant (please print): Jeremy Felish Wildlife Manager III, GMU 13A	Address: 3500 South Lake Mary Road Flagstaff, Arizona 86001	E-mail: Jfelish@azgfd.gov
Telephone: 928-856-0726		Date: September 1, 2014
AGFD Contact and Phone No. (If applicant is not AGFD personnel):		
Project has been coordinated with: Bureau of Land Management, Arizona Strip District Joe Currie, Arizona Game and Fish Department		

NEED STATEMENT – PROBLEM ANALYSIS:

Hells Hole wildlife catchment (#9025) is a Bureau of Land Management owned wildlife facility, originally constructed in 1965 to meet the objectives of mule deer management on the Arizona Strip District. This wildlife catchment is located within the Grand Canyon Parashant National Monument within the vicinity of Mt. Logan.

Presently, the existing metal apron has a wooden frame that is deteriorating, which is causing the catchment to be ineffective in capturing precipitation. The deteriorating frame is not holding onto the sheet metal on top causing a lot of water to not make it to the collection drain. Visits to this catchment consist of locating sheet metal that has blown away and patching it back onto the apron. The collection drain also has several cracks in it, allowing a lot of water to escape before it makes it to storage tank. This catchment should be redeveloped to prevent failure and to continue to provide a very valuable and dependable perennial source of water for mule deer and turkey.

This water catchment is located in a very crucial summer range for mule deer and turkey. This habitat has seen a significant increase in population of mule deer over the past several years, and is used extensively during summer months. This water serves as a dependable perennial water source for mule deer, Merriam's turkey, and other wildlife utilizing this area of southern GMU 13A.

Redevelopment will improve water collection, storage capabilities, and the lifespan of the Hells Hole water catchment. Redevelopment of this catchment is necessary to meet AZGFD statewide strategic goals, Arizona Strip water development implementation plans, and BLM objectives for management of mule deer and wildlife habitat.

PROJECT OBJECTIVES:

- Improve water availability and distribution for wildlife, in particular mule deer and wild turkey.
- Improve habitat use and distribution of wildlife species by providing additional reliable water sources within the area while increasing life expectancy and dependability of wildlife catchments.
- Decrease maintenance needs by increasing capacity, and removing mechanical components
- Continue the task through the Statewide Water Development Implementation Plan, and the regional wildlife water priority of redeveloping wildlife water catchments in GMU 13A that have failed or in disrepair due to age.
- Make progress in meeting BLM Desired Future Condition objectives for mule deer habitat as outlined by the BLM RMP.
- Increase life expectancy and dependability of this catchment
- Decrease or eliminate potential water hauling requirements to this development

PROJECT DESCRIPTION AND STRATEGIES:

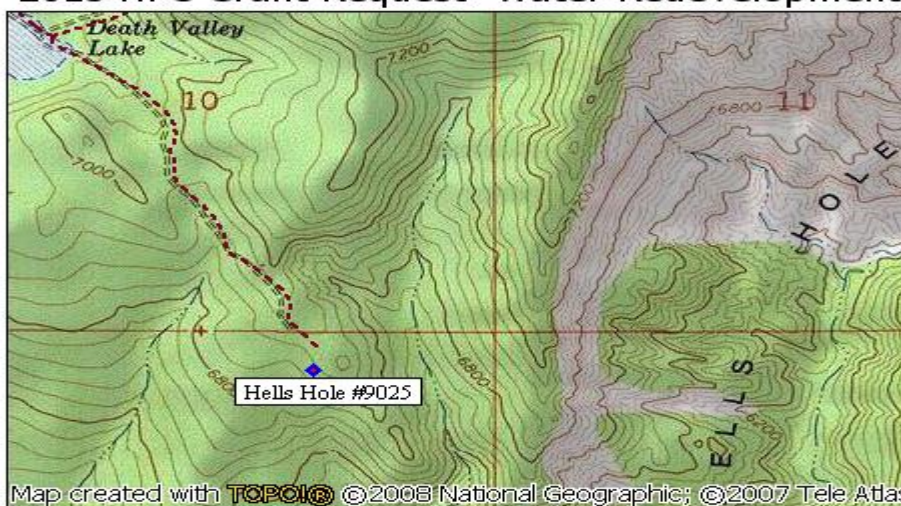
Utilize Big Game Special Tag Funds and the services of a private contractor to redevelop this catchment. Redevelopment of this facility would include the following:

1. Purchase and install a new apron package (24'X72') using metal studs and R-paneling.
2. Replace existing concrete storage tank with 4 polyethylene water storage tanks with a total capacity of 10,000 gallons.
3. Replace existing metal drinker with a 4' polyethylene walk-in drinker.
4. Replace existing barbed wire fence with new 200' X 200' steel pipe fence.
5. Purchase and install miscellaneous plumbing materials to plumb storage tank and drinker.

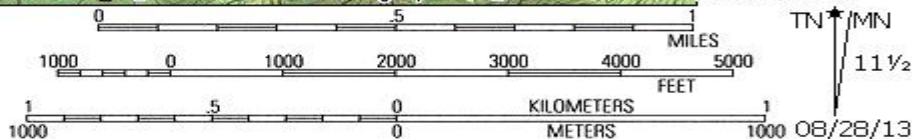
PROJECT LOCATION:

Game Management Unit 13A
Mohave County, AZ
N36.21.152 W113.14.486

2013 HPC Grant Request- Water Redevelopment



**NATIONAL
GEOGRAPHIC**





Metal apron failing due to rotten wooden frame



Capture trough failing due to holes and being rotten.





LAND OWNERSHIP AT THE PROJECT SITE(S):

(If the project area is private property, please state specifically and provide the landowner's name)

This project is located 100% on federally managed land administered by the Bureau of Land Management, AZ Strip Field Office inside the Grand Canyon Parashant Monument.

IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?
YES[] NO[] N/A [X]

HABITAT DESCRIPTION:

The Hells Hole #9025 wildlife water catchment is located within the Mt. Logan area and is best described as a ponderosa pine forest. Vegetation at the project site consists of ponderosa pine trees. This catchment is located at approximately 7000' ASL.

There are several habitat treatments within the area including a chaining to the north of the catchment that provides cliffrose, oak, serviceberry, and other browse species beneficial to mule deer. This area also provides various grass species such as wheat grass and grama grasses. These treatments as well as the ponderosa forest in the area not only provide habitat for mule deer but also for turkeys in the area as well as for several raptor species. The Mt. Logan Wilderness area is located directly to the south of this catchment.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

Costs Category – Equipment, Labor, Materials, etc.	Grant Dollars Requested – Special Tag Funds
24'X72' Metal Stud and R- Panel Apron	\$ 7500.00
4' Polyethylene Walk-in Wildlife Drinker	\$ 4500.00
4 Polyethylene Water Storage Tanks 10,000 Gallons	\$ 13,400.00
Steel Pipe Fence 200' X 200'	\$ 4520.00
Misc. plumbing supplies	\$ 1,000.00
Contractor Services \$ 25000.00 ea.	\$ 25,000.00
EA Documentation – Use of Contractor 3723.63 ea.	Already Completed by BLM
Totals	\$ 55,920.00

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

Bureau of Land Management may be able to provide some funding to assist, but it is unknown at this time.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

Arizona Game and Fish Department

- Personnel with the Arizona Game and Fish Department will request funding, provide project coordination, and disperse funds to a private contractor.

Bureau of Land Management

- BLM might be able to provide funding but it will not be known until the next fiscal year. BLM has provided all the archeological clearances and NEPA work for this project.

Private Contractor

- Complete redevelopment of the Ponderosa Burn #9753 water catchment

Arizona Deer Association

- The Arizona Deer Association as well as the Arizona Mule Deer Foundation may be potential cooperators with this project. Participation from these groups is unknown at this time.

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES ☒ NO ☐ N/A ☐

History has shown that during travel management planning of the land management agencies, roads that have historic use and provide access to wildlife waters receive priority in remaining open to the public.

PROJECT MONITORING PLAN:

After completion of this project, the wildlife catchment will continue to be monitored as part of the Region II Game Management Unit 13A water development protocol. This protocol outlines facility inspection schedules, as well as maintenance schedules if needed. It is anticipated that this catchment will be inspected at least twice a year between April and October each year.

PROJECT MAINTENANCE:

The project will be maintained by the responsible District Wildlife Manager, who may complete minor maintenance issues when possible. The Arizona Game and Fish Department Development Crew will complete routine maintenance or major repairs of each facility when necessary. As outlined in the project narrative, long term maintenance needs are expected to be minimal. All maintenance and access needs will be closely coordinated with the Arizona Strip BLM office.

PROJECT COMPLETION REPORT TO BE FILED BY:

Jeremy Felish – Wildlife Manager III, GMU 13A

WATER DEVELOPMENT PROJECTS *(please use the worksheet below):*

TREE CLEARING/REMOVAL PROJECTS *(please use the worksheet below):*

ARIZONA GAME AND FISH DEPARTMENT WATER DEVELOPMENT WORKSHEET

PROJECT TITLE: Hells Hole #9025 Water Catchment Redevelopment

1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**

Yes, in addition this water is also listed on the regional prioritization list for wildlife catchments.

2) **Please list the Development Branch personnel and date coordinated with for this project.**
Joe Curry, ongoing 2010-2014

3) **What are the estimated annual inches of precipitation for the area? (Mark one)**

☐ 2-4 ☐ 4-6 ☐ 6-8 ☒ 8-10 ☐ 10-12 ☐ 12-14 ☐ 14-16 ☐ >16

4) **Is there a perennial water source available to big game within four miles of this project?**

YES☒ (please complete #5 below) NO ☐ (skip #5 below)

5) **For the accessible, perennial water source nearest this project:**

Name of water source: Logan

Type of water source (catchment, spring, dirt tank): Catchment

Ownership of water source: Arizona Game and Fish Department

Distance in miles from project: Approximately: 3.6 miles

6) **Is the target wildlife species a result of transplant efforts? YES ☐ NO ☒**

7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, and National Monument). If private land, list landowner.**

This project is located within the Grand Canyon – Parashant National Monument.

8) **Please provide the following information about access to the proposed site:**

Type of access (mark one): ☐ 2x4 vehicles ☒ 4x4 only ☒ foot only**

**If foot access only: Distance in miles: less than 1/4 Approximate hiking time: 1 minute

-- Does access to this site require crossing private or tribal lands? YES ☐ NO☒

-- Please describe any restrictions to public access: None

9) Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.

- 24' by 72' r-panel apron package and steel frame
- 4 Polyethylene water storage tanks 2,500 gallons each
- 4' Polyethylene walk-in trough
- 200' by 200' pipe rail fence

10) Was a site visit completed? Yes[☒] No[☐]

If Yes, please list personnel that attended and date.

- A site visit was conducted June 2010 consisting of the Arizona Strip BLM field office personnel and the 271 and 272 wildlife managers to discuss water redevelopment. Another site visit was conducted in September 2011 with the same personnel.
- Archeologist visited this site in 2011 and cleared it for redevelopment
- BLM revisited this site again in 2012 and cleared it for work